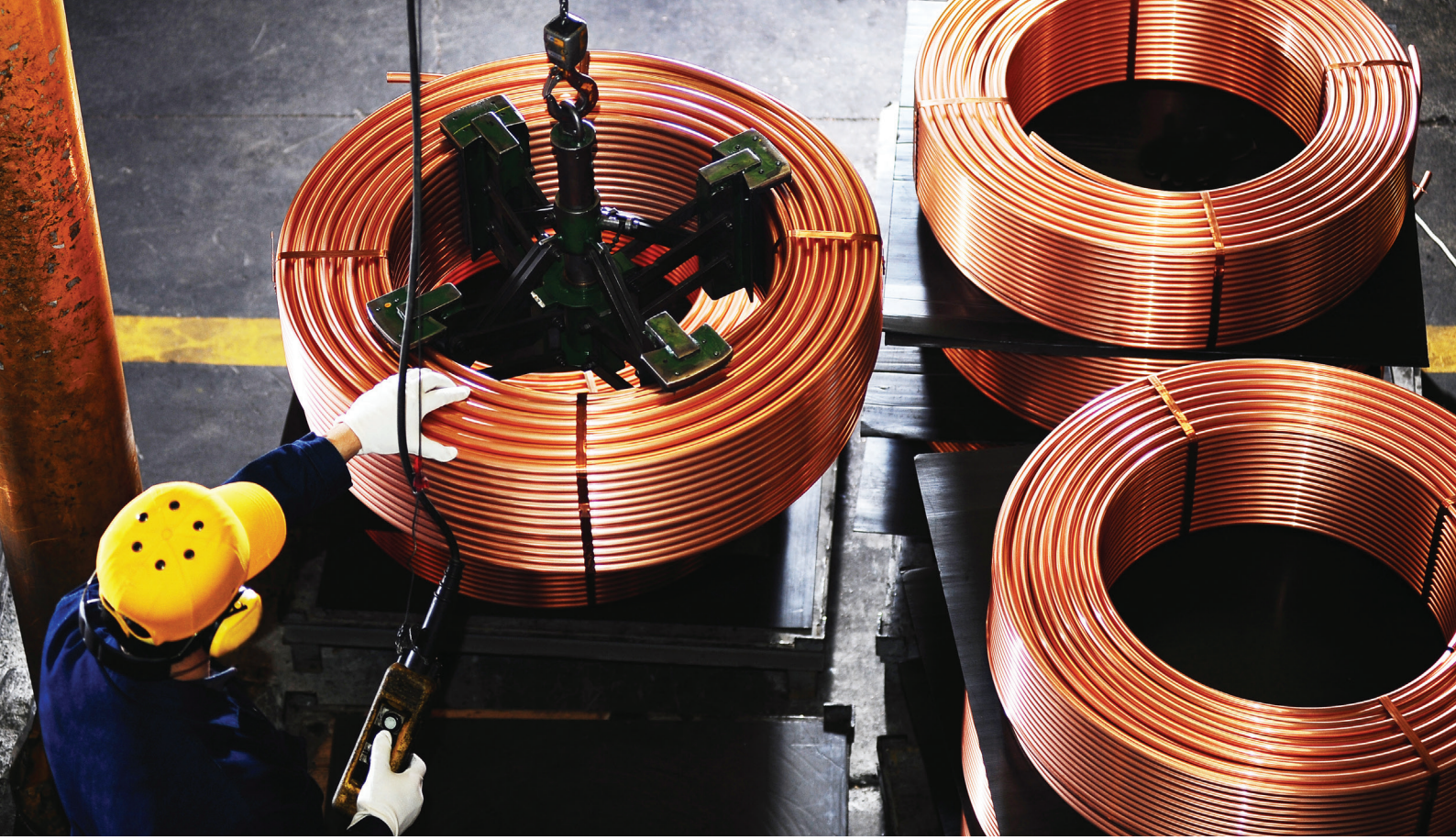
Exhibit 19



The Future of Copper

Will the looming supply gap short-circuit the energy transition?

IHS Markit® now a part of S&P Global

About S&P Global (www.spglobal.com)

S&P Global (NYSE: SPGI) provides essential intelligence. We enable governments, businesses and individuals with the right data, expertise and connected technology so that they can make decisions with conviction. From helping our customers assess new investments to guiding them through ESG and energy transition across supply chains, we unlock new opportunities, solve challenges and accelerate progress for the world.

We are widely sought after by many of the world's leading organizations to provide credit ratings, benchmarks, analytics and workflow solutions in the global capital, commodity and automotive markets. With every one of our offerings, we help the world's leading organizations plan for tomorrow, today. For more information, visit www.spglobal.com.

For more information on this report, contact:

Mohsen Bonakdarpour
Executive Director, Market Intelligence
mohsen.bonakdarpour@spglobal.com

Tabitha M. Bailey
Associate Director, Market Intelligence
tabitha.bailey@spglobal.com

For media information, contact:

Jeff Marn
Executive Director Public Relations, S&P Global
jeff.marn@spglobal.com

Study objective

A number of authorities have expressed alarm as to whether there will be enough minerals to meet the requirements for the goal of Net-Zero Emissions by 2050. These include, among others, the US government, the European Union, the International Monetary Fund (IMF), the World Bank, and the International Energy Agency (IEA). The last, the IEA, has summarized the challenge as being driven by the move from "a fuel-intensive to a mineral-intensive energy system."

This study seeks to respond to that concern by focusing on copper, which can be described as the "metal of electrification." Many nations, including the United States and the European Union, have set Net-Zero Emissions by 2050 as their climate goal. Accordingly, this target was chosen as the basis for the study.

The study seeks to quantify the amount of additional copper that will be required by increased electrification and the energy transition—most specifically, the rapid move to electric vehicles (EVs) and renewable electricity and the need for increased electricity infrastructure. It concludes that copper demand will double by 2035 and continue to grow thereafter. On the supply side, it finds how challenging that will be, whether on the basis of current trends or with an unprecedented acceleration of supply from mining and recycling.

The study makes no policy recommendations. Rather, it seeks to respond to the urgent concern of the authorities above and others by quantifying the copper requirements of Net-Zero Emissions by 2050 and benchmarking them against the supply response. We hope that this study will be a contribution to the continuing dialog about achieving Net-Zero Emissions by 2050.

S&P Global is exclusively responsible for this report and all of the analysis and content contained herein. It represents the collaboration of S&P Global's Commodity Insights, Economics and Country Risk unit within Market Intelligence, and Mobility divisions. The analysis and metrics developed during the course of this research represent the independent analysis and views of S&P Global and are intended to contribute to the dialogue on the copper required to meet the energy transition requirements under Net-Zero Emissions by 2050.

Project Chairman

- Daniel Yergin, Vice Chairman, S&P Global

Project Director

- Mohsen Bonakdarpour, Executive Director, Economics & Country Risk, S&P Global Market Intelligence

Project Manager

- Tabitha M. Bailey, Associate Director, Economics & Country Risk, S&P Global Market Intelligence

Project Team

- Mikhail Alekseenko, Consulting Principal, Upstream Consulting, S&P Global Commodity Insights
- Olivier Beaufils, Director, Energy Transition Consulting, S&P Global Commodity Insights
- Frank Hoffman, Consulting Principal, Economics & Country Risk, S&P Global Market Intelligence
- John Mothersole, Director, Non-Ferrous Metals, Economics & Country Risk, S&P Global Market Intelligence
- Keerti Rajan, Consulting Director, Economics & Country Risk, S&P Global Market Intelligence
- Nathalie Wlodarczyk, Vice President, Economics & Country Risk, S&P Global Market Intelligence

Key Contributors

- Tristan Abbey, Consultant, Comarus Analytics LLC
- Veronica Burford, Senior Research Analyst, Economics & Country Risk, S&P Global Market Intelligence
- Jeff Marn, Executive Director Public Relations, S&P Global
- Eugenia Salazar, Consulting Analyst, Energy Transition & Strategy Consulting, S&P Global Commodity Insights
- Carla Selman, Principal Analyst, Economics & Country Risk, S&P Global Market Intelligence

Acknowledgments

We want to acknowledge and express appreciation to James Rosenfield, S&P Global Senior Vice President, for his key role in helping to structure the overall research project. We extend our appreciation to Mark Mills, Faculty Fellow at Northwestern University's McCormick School of Engineering and Applied Science, for his review. We would like to express appreciation to the members of the S&P Global project Advisory Board – Atul Arya, Senior Vice President and Chief Energy Strategist, and Carlos Pascual, Senior Vice President for Global Energy and International Affairs.

We would like to thank the additional Editorial, Design, and Publishing team members; subject matter experts; technical energy experts; industry experts; and analysts who have contributed to this study: Nur Syahirah Abdullah, Theophilus Acheampong, Kristyna Alexova, Jordan Anderson, Mizan Bin Abdul Rahman, Wei Xiong Chan, Hannah Cotillon, Keri Deegan, Andrew Ellis, Bob Flanagan, Diego Ortiz Garcia, Jan Gerhard, Beeyong Khoo, Carol Kidd, Hannah Kidd, Alex Kokcharov, Blanka Kolenikova, Deepa Kumar, David Li, Jose Macip, Obakeng Makapane, Alex Melikishvili, Karl Melkonyan, Indra Mukherjee, Dr. Lindsay Newman, Bibianna Norek, Edwin Pope, John Raines, Subashni Sandrison, Chris Suckling, Andrei Utkin, Claudio Vittori.

This report offers an independent and objective assessment of the role of copper in achieving the goals of Net-Zero Emissions by 2050. S&P Global is solely responsible for the analysis and conclusions in the report. This research was supported by the following organizations: Anglo American plc; Antofagasta plc; BHP Ltd; Compania de Minas Buenaventura S.A.A.; Freeport-McMoRan Inc.; Glencore plc; Ivanhoe Mines Ltd.; Rio Tinto Corporation; Sumitomo Metal Mining Co. Ltd.; Taseko Mines Limited; Teck Resources Limited; Lundin Mining Company; Trafigura Group Pte Ltd; and Vale Limited Mining Company.

Contents

Chapter 5. What does this mean for supply?

The preceding sections have quantified how the requirements of the energy transition on top of traditional copper end markets will dramatically increase the overall demand for copper—roughly doubling from current levels by 2035, an unprecedented increase. The amount of copper required between 2022 and 2050 is more than all the copper consumed in the world between 1900 and 2021. But will there be enough supply to meet these demand ambitions?

> Neither scenario presented should be interpreted as a baseline forecast. Rather, they provide a framework for understanding the scale and challenges of meeting the copper supply requirements of Net-Zero Emissions by 2050 whether based on current trends or on a major acceleration.

Demand has been tested against two supply scenarios—High Ambition and Rocky Road. The name "High Ambition" is in the spirit of the oft-repeated phrase that "greater ambition" is needed to achieve 2050 goals. "Rocky Road" reflects all the challenges along the road from excavating rock to finished copper product. Both scenarios make clear that it will be extremely difficult to deliver that scale of supply over the time frame. The annual shortfall in High Ambition is, at its highest, 1.6 MMt in 2035. Meanwhile, the shortfall under Rocky Road is much larger at 9.9 MMt in 2035.

The scenarios describe two different supply responses. In High Ambition, the supply system is put to the test. It is based on performance levels that were achieved in earlier years, plus a major increase in recycling and in which, overall, things go forward without much disruption. Rocky Road represents a continuation of trends as they are today and have been for the past several years of high prices.

There are three possible legs to increasing supply. One is new mines or major expansion of existing mines. The second is higher capacity utilization—that is, increasing output as a percentage of a mine's total capacity. The third is the "aboveground mine"—recycling—that is extracting copper from discarded batteries, old wiring, and other equipment.

One way to meet the demand growth would be to develop and open new mines. Theoretically, future demand could be met by opening three "tier-one" mines, each producing 300,000 metric tons of copper per year every year for the next 29 years. That would be a monumental and taxing job, and without any precedent historically and costing over $500 billion in today's dollars. Moreover, it can take more than a decade and a half to develop a new mine. So, growth in capacity comes from a combination of expanding existing mines and progress in opening mines currently under development. This means an average annual increase in capacity of 2.9% from 2021 and 2035, which is a continuation of the recent trend. And then, with an expanded base, it drops to 1.6% between 2036 and 2050.

So, instead, the two scenarios are built around the other variables—utilization and recycling.